BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

F I L E D
10-27-06
03:24 PM

Order Instituting Rulemaking to Implement the Commission's Procurement Incentive Framework and to Examine the Integration of Greenhouse Gas Emissions Standards into Procurement Policies	R.06-04-009

REPLY COMMENTS OF THE ENERGY PRODUCERS AND USERS COALITION AND THE COGENERATION ASSOCIATION OF CALIFORNIA ON THE FINAL WORKSHOP REPORT

Michael Alcantar
Donald Brookhyser
Alcantar & Kahl LLP
1300 SW Fifth Avenue
Suite 1750
Portland, OR 97201
503.402.9900 office
503.402.8882 fax
mpa@a-klaw.com
deb@a-klaw.com

Counsel to the
Cogeneration Association of California

Evelyn Kahl
Seema Srinivasan
Alcantar & Kahl LLP
120 Montgomery Street
Suite 2200
San Francisco, CA 94104
415.421.4143 office
415.989.1263 fax
ek@a-klaw.com
sls@a-klaw.com

Counsel to the
Energy Producers and Users Coalition

October 27, 2006

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to Implement the Commission's Procurement Incentive Framework and to Examine the Integration of Greenhouse Gas Emissions Standards into Procurement Policies	R.06-04-009

REPLY COMMENTS OF THE ENERGY PRODUCERS AND USERS COALITION AND THE COGENERATION ASSOCIATION OF CALIFORNIA ON THE FINAL WORKSHOP REPORT

Pursuant to the Assigned Commissioner's Ruling in this matter,[1] the Energy Producers and Users Coalition[2] and the Cogeneration Association of California[3] (EPUC/CAC) hereby file these Reply Comments. These comments reply to those comments on the Final Workshop Report filed by other stakeholders on October 18.

I. INTRODUCTION

The initial comments filed on the Final Workshop Report indicate that Staff has captured much consensus in its report. Several issues remain unresolved, and EPUC/CAC address these issues in these reply comments.

---

[1] Issued October 5, 2006.

[2] EPUC is an ad hoc group representing the electric end use and customer generation interests of the following companies: Aera Energy LLC, BP America Inc. (including Atlantic Richfield Company), Chevron U.S.A. Inc., Shell Oil Products US, THUMS Long Beach Company, and Occidental Elk Hills, Inc.

[3] CAC represents the power generation, power marketing and cogeneration operation interests of the following entities: Coalinga Cogeneration Company, Mid-Set Cogeneration Company, Kern River Cogeneration Company, Sycamore Cogeneration Company, Sargent Canyon Cogeneration Company, Salinas River Cogeneration Company, Midway Sunset Cogeneration Company and Watson Cogeneration Company.

First, EPUC/CAC comment on the methodology for calculating a cogenerator's emission rate. The vast majority of parties accepted EPUC/CAC's suggested method for including thermal energy output in that calculation, and it remains the simplest, most straightforward solution to the calculation issue. NRDC/TURN/UCS/WRA ("NRDC"), however, offers misplaced recommendations for measuring thermal output for use in the emissions rate calculation.

Second, debate remains about the application of screening criteria. The screening criteria include the baseload characteristic and the minimum size threshold. In the case of contractual commitments where less than the entire output of a generator is being delivered to one or more LSEs, these criteria should be applied to the contract deliveries, not the underlying resource. Without this refinement, the screening criteria will be applied to energy output used on-site – energy that falls unambiguously outside this Commission's jurisdiction. The Commission must maintain this clear jurisdictional boundary and avoid imposing any part of the EPS regulatory scheme on self-generation that is used in a manner consistent with Public Utilities Code section 218.

Third, initial comments addressed whether the minimum size threshold of 25 MW comports with SB 1368. As noted in EPUC/CAC's opening comments, the Commission holds sufficient authority to "fill in the gaps" of the statute to adopt a minimum size threshold. EPUC/CAC also oppose NRDC's suggestion that the threshold be applied based on unit size and decreased to 5 MW.

Fourth, disagreement remains concerning the standard itself; some parties argue that it should be reduced to 1,000 lbs/MWh, and some argue that it should be increased above the current 1,100 lbs/MWh recommended in the Final Workshop Report. EPUC/CAC submit that the standard should not be reduced below 1,100 lbs, and that there are good policy reasons for increasing it.

Finally, several parties submitted comments related to a policy exemption for QFs. An exemption is consistent with the federal and state policy of encouraging cogeneration.

II. EPUC/CAC'S METHODOLOGY FOR COGENERATION CALCULATION IS THE BEST SOLUTION FOR THIS INTERIM MEASURE.

EPUC/CAC recommended a methodology for determining a cogeneration emissions rate – a recommendation adopted in the Final Workshop Report. This methodology, consistent with SB 1368, accounts for all energy output from a cogenerator, including electric and thermal energy output. The EPUC/CAC method converts thermal energy output into a kilowatt-hour equivalent so that the total emissions of the cogeneration plant can then be allocated equitably between electric and thermal outputs. Most parties commenting on this issue supported EPUC/CAC's method.[4]

Sempra/SDG&E proposed a different methodology, subtracting the emissions that could be imputed to a separate boiler producing an equivalent thermal output. This is another method for making the calculation. Unfortunately, it does require an assumption about the efficiency of a stand-alone

[4] *See,* Comments of DRA, NRDC/TURN/UCS/WRA, CCC, and IEP.

boiler. EPUC/CAC's method is thus superior because it uses real, verifiable data that recognizes the actual benefits of cogeneration.

Two remaining issues concerning the cogeneration emissions rate calculation methodology warrant comment. First, the Assigned Commissioner's Ruling, in describing this issue in Attachment 2, suggested that the EPUC/CAC method utilized a conversion factor based on the heat rate of the generator. This is incorrect. The EPUC/CAC method utilizes a standard engineering conversion factor well accepted in the industry: one KWh is equivalent to 3413 BTUs. This method does not rely on the heat rate of the generator.

Second, while NRDC agrees with the EPUC/CAC methodology, it argues that the measure of thermal energy included in the calculation should be the thermal energy "actually" used, not just "useful." EPUC/CAC submit that NRDC's comments are misplaced and, to address these issues, recommend the use of calculations performed regularly by cogenerators as the source of the thermal output value.

The term "useful thermal energy" is utilized by FERC in its regulations mandating the minimum efficiencies of a QF, and therefore has developed a well-known meaning. FERC defines a cogeneration facility as "equipment used to produce electric energy and forms of <u>useful thermal energy</u> (such as heat or steam),…"[5] The regulations also define "useful thermal energy" as:

> *(h) Useful thermal energy output of a topping-cycle cogeneration facility means the thermal energy:*
> *(1) That is made available to an industrial or commercial process (net of any heat contained in condensate return and/or makeup water);*
> *(2) That is used in a heating application (e.g., space heating, domestic hot*

[5] 18 CFR §202(c).

water heating); or
(3) That is used in a space cooling application (i.e., thermal energy used by an absorption chiller).[6]

Although the term "useful" should be utilized, EPUC/CAC acknowledge NRDC's concern that the calculation should include the thermal energy which is actually intended to be delivered to the thermal host. The calculation should not include remaining thermal energy which is intended to be exhausted as waste heat. This is consistent with FERC's regulation quoted above which defines "useful thermal energy" in terms of its application to a productive industrial process.

EPUC/CAC are concerned with NRDC's proposal for a "case-by-case" review of cogeneration facilities. If NRDC simply means that the Commission could use existing, individual facility-specific numbers in the calculation for each cogeneration facility contracting with an LSE, EPUC/CAC agree. If, however, NRDC intends that the Commission review the industrial processes integrated with a cogeneration facility in determining the emissions rate, or that the Commission re-evaluate the calculation methodology, EPUC/CAC strongly disagree.

The Commission should not establish regulations requiring review of a cogeneration site "behind the meter". (Notably, SCE goes beyond this recommendation, proposing a complete exemption for qualifying facility cogenerators.) Instead, the Commission should employ a simple, verifiable source for useful thermal output, which is available from the interconnected utility, without additional Commission inquiry. Attached to these reply comments is a copy of the questionnaire that cogeneration facilities complete annually to

[6] 18 CFR §202(h).

demonstrate compliance with FERC efficiency requirements. On this form, the cogenerator presents a value for "useful thermal output". The Commission should base a cogenerator's emissions rate on the thermal values presented by the cogenerator to the utility.

An additional ambiguity remains in NRDC's comments, which requires clarification. In arguing that the calculation should utilize the thermal energy "actually" used, it is unclear whether NRDC's proposal would comply with the notion of gateway screening. In other words, it is not clear whether NRDC would allow the prospective engineering analysis contemplated by the EPS Straw Proposal or whether NRDC would require some kind of operational history. EPUC/CAC submit that the proposed use of the utility efficiency questionnaire, discussed above, as the data source for a cogenerator's emissions rate calculation would eliminate this concern.

For new cogeneration facilities, when this questionnaire has not been submitted to the utility, the EPS should be determined based on "reasonably projected" emissions of the facility in a one-time gateway review. This approach would be consistent with the principle that the EPS will be judged prospectively based on the engineering design and operational parameters of the facility.[7] NRDC recognizes this process when it states in its comments that the calculation should use "the actual thermal output that is used, available from the design

[7] Such a prospective assessment based on "the design of the powerplant and the intended use of the powerplant" is required by SB 1368. 8341(b)(4).

engineers."[8] These projected emissions can again be based on readily available information in FERC Form 556, required for QF certification.

To clarify how the useful thermal energy will be determined, EPUC/CAC suggest the following revision to the provision in Paragraph 5(f) of the Straw Proposal:

> Facilities used for self-generation are covered if they meet the criteria for the gateway screen. Credit against emission rates for co-generation thermal loads will be permitted using the calculation proposed by EPUC/CAC and reviewed on a case-by-case basis relying on efficiency data provided to the interconnected utility or, where this information is unavailable, relying on the efficiency data submitted to the FERC on the facility's Form 556. ~~upon a showing of the percentage of facility's useful thermal load.~~

Finally, EPUC/CAC suggest that it would be far simpler to recognize the implicit environmental benefits created by cogeneration efficiency, which must be demonstrated for FERC certification, by simply exempting cogeneration from EPS screening.

III. SCREENING CRITERIA SHOULD BE APPLIED TO CONTRACT DELIVERIES, NOT THE UNDERLYING UNIT.

A. Both the EPS and the Screening Criteria Must Be Applied Only to Deliveries to LSEs, for Both Legal and Policy Reasons.

The Workshop Report recommends that the minimum size threshold should be assessed based on the deliveries to LSEs, while the baseload characteristic should be assessed based on the underlying unit. As EPUC/CAC explained in their initial comments, both screens should be assessed based on the deliveries to LSEs.

---

[8] NRDC comments, p. 18.

NRDC argues that the screens should be assessed based on the characteristics of the underlying unit. NRDC's stated motivation during these proceedings has been to reduce the financial risk that LSEs and ratepayers may face if future GHG regulation imposes unforeseen financial burdens on current procurement decisions. NRDC argued:

> Accomplishing the EPS goal of minimizing the financial and reliability risk to bill-payers of long-term commitments to high greenhouse gas emitting generation necessarily requires looking at the characteristics and emissions of the facility(ies) being contracted for, *not* the contract itself. After all, it is the generation facility that will incur the added costs and reliability issues if it is a high emitting resource, and all contracts can be affected by this, no matter their characteristics.

While the generation facility may bear the financial burden of complying with greenhouse gas regulations, the LSEs only bear that part of the burden for which they have contracted. The LSE may have exonerated itself contractually from any liability, or its risk may be limited to the capacity for which it has committed. In any event, the financial risk is measured by the size of the commitment, not the size of the underlying resource.

Assessing screens based on deliveries to LSEs rather than unit size also eliminates a possible discrimination between customer-owned generation and merchant generation. An example allows comparison between a merchant generator and a similarly-situated generator owned by an industrial customer. The merchant generator is a combustion turbine with 5 MW capacity which is dispatched for peak generation and has a capacity factor of 20%. The industrial customer operates a generator with 30 MW capacity; the generator is used principally to satisfy on-site load of the customer and operates at a 90% capacity

factor. It has a contract with an LSE to supply as-available capacity and energy, but it never supplies more than 5 MW and its sales are equivalent to a 20% capacity factor. Both generators supply an equivalent product to the market and should be impacted comparably by the EPS. If the screens are applied based on the characteristics of the underlying unit, then the merchant generator is excluded both because its capacity factor is less than 60% and because its capacity is less than the size threshold. However, the customer-owned generation satisfies both screens and would be subject to the EPS because the underlying unit has a capacity factor in excess of 60% and its capacity is greater than the minimum size. If the screens are applied based on the deliveries to LSEs, then the two generators would be treated comparably because their deliveries to LSEs are both less than 60% capacity factor and less than the minimum size.

It does not make sense to apply the screens to the underlying resource when the EPS itself can only apply to the deliveries to California LSEs. The screens and the EPS should have equivalent application.

Not only does such conformity between the screening criteria and the application of the EPS make sense from a policy perspective, but it is mandated by legal jurisdictional boundaries. Staff is correct when it states that

> where the electrical output retained on-site by a customer is not part of the LSE's financial commitment or acquisition, we cannot conclude that it falls within either the commission's purposes in establishing the EPS, or the definition of covered resources in AB 1368. [sic][9]

[9] Final Workshop Report, p. 30.

Such a conclusion is legally mandated by Sec. 218 which excludes cogenerators from the jurisdiction of this commission to the extent their generation is delivered on-site or "over the fence." NRDC's argument that the EPS should be applied to self-generation[10] is simply not allowed by law. The Commission's jurisdiction is limited to the contract with an LSE; it does not extend to the privately owned generation facility, and the Commission should draw a bright-line boundary for the application of the EPS and its screening criteria.

B. The Emission Rate is Determined for the Facility, Not Some Portion of Its Output.

NRDC's comments regarding application of the EPS to a contract also raise an issue as to how the emission rate will be determined. NRDC's apparent concern is that emission rates may only reflect that portion of the electrical output attributable to a contract delivery. NRDC's apparent concern is misplaced. EPUC/CAC agree that if the EPS applies to any commitment to the output of a facility, the emission rate for the facility as a whole will be utilized. Additional considerations come into play in the case of a multi-unit self-generation facility, as described below.

C. The EPS Should Be Applied Only to Units Selling Into the Grid.

There is another technical issue to resolve in the application of screening criteria where there are multiple units owned by an end-use customer and supplying the customer's own load on-site. Such multiple units may be operated and dispatched independently, and the owner may enter into a contract to sell a portion of the output of one unit to an LSE. The remaining units in this example

[10] NRDC Comments, p. 12.

are operated only to supply the customer's load on-site. In such a case, the screening criteria should only be applied to the deliveries to the LSE from the single unit. For the jurisdictional and policy reasons described above, the Commission cannot use this as an excuse to impose the screening criteria on the remaining units which have no sales to the gird. This is consistent with the general principle in the Workshop Report that where the contract is specific to a single unit, only that unit must qualify under the EPS.[11]

IV. THE MINIMUM SIZE THRESHOLD IS PERMITTED UNDER SB 1368, AND SHOULD BE MAINTAINED AT 25 MW.

A minimum size threshold improves the efficiency and cost-effectiveness of the EPS. It eliminates small units which will not have a significant effect on total carbon emissions. Further, it eliminates a regulatory burden on such small units which can be an economic disincentive to their continued operation. The addition of such a detail in the implementation of an EPS is certainly allowed by SB 1368. As EPUC/CAC briefed in their initial comments, California law permits an agency in adopting regulations to add detail that is consistent with the authorizing statute. A minimum size threshold is consistent with SB 1368. SB 1368 requires the Commission to consider "overall costs to electricity customers" in its implementation of the EPS. Considering the factor of cost as part of the implementation process clearly gives the Commission authority to tailor the details of its implementation. Such implementation can be designed to provide the most cost-effective regulatory process consistent with SB 1368.

[11] Final Workshop Report, p. 45, Paragraph 7(a) of Straw Proposal.

The minimum size threshold should be maintained at 25 MW as recommended in the Final Report. NRDC argued that the threshold should be reduced to 5 MW; however that would eliminate any real effect of the threshold. A demarcation of 20 – 25 MW has been often used in regulatory proceedings to separate smaller generation for which complex regulation is simply not cost-effective.[12] It also is used by the Regional Greenhouse Gas Initiative as a size threshold. Using 25 MW would provide some consistency between the California and New England programs in furtherance of the Governor's clear direction to coordinate the two programs.[13]

V. THE STANDARD SHOULD BE AT LEAST 1,100 LBS/MWH.

The Final Workshop Report recommends a standard of 1,100 lbs/MWh. This recommendation was based in part on data showing that there are combined cycle units with emission rates above 1000 lbs/MWh. In order to ensure that the EPS does not so constrict procurement that there is a supply shortage, the standard should remain at 1,100 lbs or above.

SB 1368 requires the Commission to set the standard "no higher than the rate of emissions of greenhouse gases for combined-cycle natural gas baseload generation." Combined-cycle baseload generation is the guide for setting the standard, but the statute does not say that the standard should be set so that only combined-cycle units would satisfy it. Some parties argue that the standard is sufficient if *new* combined-cycle units can meet it, because all existing

---

[12] *See, e.g.*, FERC's Order 2003 for Interconnection Standards for Small Generators; CPUC Rule 21; CPUC DG in Energy Action Plan.

[13] Executive Order S-20-06, October 17,2006.

combined-cycle units are "deemed" to be in compliance.[14] However, that perspective ignores the effect of the EPS on generators other than combined-cycle units. While the standard may be set based on a combined-cycle, it does not mean the Commission should not consider the effect on generators of other technologies. To ensure that all gas-fired units are available for procurement, the Commission should set the standard as high as SB 1368 will allow. The standard should at least remain at 1,100 lbs/MWh.

VI. ENCOURAGEMENT OF QFS REMAINS AN IMPORTANT POLICY.

EPUC/CAC have previously briefed policy justifications, as well as legal requirements, for an exemption of QFs from the application of the EPS, and reiterate and incorporate by reference those arguments. Several parties in their initial comments on the Workshop Report raised issues which require response. Both SDG&E and DRA argue that the Commission need not resolve any conflict with obligations under PURPA because an LSE can enter into a contract of less than five years duration with the QF, meeting its PURPA obligation while avoiding the application of the EPS. Finding a way to permit some limited procurement from QFs is not consistent with a policy of encouraging their development. A QF may be able otherwise to negotiate a long-term contract of 10 – 20 years, giving it the necessary long-term stability to facilitate project financing. Such a contract should be encouraged by the Commission's regulations.

[14] Calpine; DRA, p. 10.

VII. CONCLUSION

The final decision adopting an EPS should utilize the straw proposal from the Final Workshop Report, including the following features:

- Accept the methodology proposed by EPUC/CAC for calculation of a cogenerator's emission rate, reflecting the proposed use of available FERC efficiency data from the interconnected utility or FERC Form 556.
- Retain the 25 MW minimum size threshold.

The decision should revise the Workshop Report in the following aspects:

- Application of the screens for both baseload capacity and minimum size should be based on the size of the contract delivery to an LSE, not the underlying unit.
- The standard should be maintained at 1,100 lbs/MWh.
- An exemption for bottoming-cycle QFs should be included.
- An exemption for all QFs to reflect federal and state policy to encourage cogeneration should be included, based on EPUC/CAC's prior brief.

The Commission must reject arguments for modifications made by other parties, including the proposed intrusions into self-generation industrial sites, the proposal that screening criteria apply to the underlying facility, and the proposal to decrease the minimum size threshold to 5 MW.

October 27, 2006

Respectfully submitted,

Michael Alcantar
Donald Brookhyser

Counsel to the Cogeneration Association of California

Evelyn Kahl
Seema Srinivasan

Counsel to the Energy Producers and Users Coalition

QF RESOURCES
2244 Walnut Grove Avenue,
P.O. Box 800 GO-1, Quad 4D
Rosemead, California 91770
(626) 302-9110 phone (626) 302-9116 FAX

Formula used for Cogeneration:

I. Calculate Efficiency Standard (1):

$$\frac{\text{Useful Power Output (Btu)} + [\text{Useful Thermal (Btu)} / 2]}{\text{Total Energy Input (Btu)}}$$

II. Calculate the Percent of Thermal Energy Output (2):

$$\frac{\text{Useful Thermal Output (Btu)}}{\text{Useful Power Output (Btu)} + \text{Useful Thermal Output (Btu)}}$$

Formula used for Small Power Producer:

Fuel Use Standard (3) = Supplemental Energy Source (Btu) / Total Energy Input (Btu)

Conversions: 1 kWh = 3,413 Btu 1 therm = 99,976.1 Btu

1 mBtu = 1000 Btu 1 mmBtu = 1,000,000 Btu

Notes:

1. **If the percent of Thermal Energy Output is equal to or more than 15%, then the Efficiency Standard can be no less than 42.5%.**
   If the percent of Thermal Energy Output is less than 15%, then the Efficiency Standard can be no less than 45.0%.
2. **The Percent of Thermal Energy Output must be Five (5) percent minimum.**
3. **Fuel Use Standard must be less than or equal to 25%.**

QF RESOURCES
2244 Walnut Grove Avenue,
P.O. Box 800 GO-1, Quad 4D
Rosemead, California 91770
(626) 302-9110 phone (626) 302-9116 FAX

QF EFFICIENCY MONITORING PROGRAM OUTLINE

Applicability:

- This program applies to all cogeneration and biomass projects.
- This program also applies to other technologies using fossil fuel supplemental firing.

Collection and Submittal of Data:

- QFs are required to submit annual operating and efficiency data sufficient to demonstrate compliance with the Federal Energy Regulatory Commission ("FERC") operating and efficiency standards of Title 18 of the Code of Federal Regulations, Chapter 1, Part 292.
- Data Submitted should be complete, verifiable, and organized in **monthly** subtotals for an entire calendar year.
- QFs may enter into confidentiality agreements with Edison regarding their data.

Performance Evaluation:

- The data for a cogeneration project must support an annual efficiency equal to or greater than the minimum allowed by the FERC operating and efficiency standards.
- The data for a small power production facility must demonstrate that annual supplemental fuel used is equal to or less than the maximum allowed by the FERC operating and efficiency standards.
- Any QF whose submittal fails to demonstrate compliance with the FERC operating and efficiency standards shall be considered out of compliance.
- All QFs will be subject to a site visit each year.
- Edison will notify each project in writing of the evaluation results.

Remedial Action for Out of Compliance Projects:

Edison may file a request with FERC for its approval to do any or all of the following:

- The energy and capacity price shall be reduced to 80% of the published avoided cost .
- Collection of all prior over-payments.
- Removal from parallel operation.

Appeal Procedure:

- Out of compliance projects may request reevaluation of the QF's performance.

QF RESOURCES
2244 Walnut Grove Avenue,
P.O. Box 800 GO-1, Quad 4D
Rosemead, California 91770
(626) 302-9110 phone (626) 302-9116 FAX

Qualifying Facility Efficiency Monitoring Program
COGENERATION
Data Reporting Form
2005

I. Name and Address of Project
Name: _____
Street: _____
City: _____ State: _____ Zip Code: _____

QFID No.2053 Generation Nameplate (KW): _____

II. In Operation: ☐ Yes ☐ No

III. Can your facility dump your thermal output directly to the environment? ☐ Yes ☐ No

IV. Ownership

	Name	Address	Ownership (%)	Utility	
1				Y	N
2				Y	N
3				Y	N
4				Y	N
5				Y	N

V. 2005Monthly Operating Data

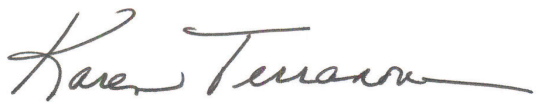
- Indicate the unit of measure used for your useful thermal output if other than mBTUs:
  BTUs _____ Therms _____ mmBTUs _____
- If Energy Input is natural gas, use the Lower Heating Value (LHV) as supplied by Gas Supplier.

	Useful Power Output (kWh)	Energy Input (Therms)	Useful Thermal Output (mBtu)
Jan			
Feb			
Mar			
Apr			
May			
Jun			
Jul			
Aug			
Sep			
Oct			
Nov			
Dec			
Yearly Total			

CERTIFICATE OF SERVICE

I, Karen Terranova hereby certify that I have on this date caused the attached **Reply Comments of the Energy Producers & Users Coalition and the Cogeneration Association of California** in R06-04-009 to be served to all known parties by either United States mail or electronic mail, to each party named in the official attached service list obtained from the Commission's website, attached hereto, and pursuant to the Commission's Rules of Practice and Procedure.

Dated October 27, 2006 at San Francisco, California.



Karen Terranova

ADRIAN PYE
ENERGY AMERICA, LLC
263 TRESSER BLVD.
STAMFORD, CT 6901
adrian.pye@na.centrica.com

KEVIN BOUDREAUX
CALPINE POWER AMERICA-CA, LLC
717 TEXAS AVENUE, SUITE 1000
HOUSTON, TX 77002
kevin.boudreaux@calpine.com

LARRY BARRETT
AOL UTILITY CORP.
PO BOX 60429
COLORADO SPRINGS, CO 80960
ibbarrett@adelphia.net

DENNIS M.P. EHLING
KIRKPATRICK & LOCKHART NICHOLSON GRAHAM
10100 SANTA MONICA BLVD., 7TH FLOOR
LOS ANGELES, CA 90067
dehling@klng.com

TIFFANY RAU
CARSON HYDROGEN POWER PROJECT LLC
ONE WORLD TRADE CENTER, SUITE 1600
LONG BEACH, CA 90831-1600
tiffany.rau@bp.com

DANIEL W. DOUGLASS
DOUGLASS & LIDDELL
21700 OXNARD STREET, SUITE 1030
WOODLAND HILLS, CA 91367
douglass@energyattorney.com

ANNETTE GILLIAM
SOUTHERN CALIFORNIA EDISON COMPANY
2244 WALNUT GROVE AVENUE
ROSEMEAD, CA 91770
annette.gilliam@sce.com

THEODORE ROBERTS
SEMPRA GLOBAL
101 ASH STREET, HQ 13D
SAN DIEGO, CA 92101-3017
troberts@sempra.com

STEVE RAHON
SAN DIEGO GAS & ELECTRIC COMPANY
8330 CENTURY PARK COURT, CP32C
SAN DIEGO, CA 92123-1548
lschavrien@semprautilities.com

GEORGE HANSON
CITY OF CORONA
730 CORPORATION YARD WAY
CORONA, CA 92880
george.hanson@ci.corona.ca.us

RICK C. NOGER
PRAXAIR PLAINFIELD, INC.
2711 CENTERVILLE ROAD, SUITE 400
WILMINGTON, DE 19808
rick_noger@praxair.com

E.J. WRIGHT
OCCIDENTAL POWER SERVICES, INC.
5 GREENWAY PLAZA, SUITE 110
HOUSTON, TX 77046
ej_wright@oxy.com

DON STONEBERGER
APS ENERGY SERVICES COMPANY, INC.
400 E. VAN BUREN STREET, SUITE 750
PHOENIX, AZ 85004
don.stoneberger@apses.com

GREGORY KOISER
CONSTELLATION NEW ENERGY, INC.
350 SOUTH GRAND AVENUE, SUITE 3800
LOS ANGELES, CA 90071
gregory.koiser@constellation.com

GREGORY S.G. KLATT
DOUGLASS & LIDDELL
411 E. HUNTINGTON DRIVE, STE. 107-356
ARCADIA, CA 91006
klatt@energyattorney.com

PAUL DELANEY
AMERICAN UTILITY NETWORK (A.U.N.)
10705 DEER CANYON DRIVE
ALTA LOMA, CA 91737
pssed@adelphia.net

RONALD MOORE
GOLDEN STATE WATER/BEAR VALLEY ELECTRIC
630 EAST FOOTHILL BOULEVARD
SAN DIMAS, CA 91773
rkmoore@gswater.com

BILL LYONS
CORAL POWER, LLC
4445 EASTGATE MALL, SUITE 100
SAN DIEGO, CA 92121
Bill.Lyons@shell.com

GLORIA BRITTON
ANZA ELECTRIC COOPERATIVE, INC.
PO BOX 391909
ANZA, CA 92539
GloriaB@anzaelectric.org

TAMLYN M. HUNT
COMMUNITY ENVIRONMENTAL COUNCIL
26 W. ANAPAMU ST., 2/F
SANTA BARBARA, CA 93101
thunt@cecmail.org

KEITH R. MCCREA
SUTHERLAND, ASBILL & BRENNAN, LLP
1275 PENNSYLVANIA AVE., N.W. STE. 800
WASHINGTON, DC 20004-2415
keith.mccrea@sablaw.com

ERIC GUIDRY
WESTERN RESOURCE ADVOCATES
2260 BASELINE ROAD, SUITE 200
BOULDER, CO 80304
eguidry@westernresources.org

DARRELL SOYARS
SIERRA PACIFIC RESOURCES
6100 NEIL ROAD
RENO, NV 89520-0024
Gwilliams@SPPC.COM

MICHAEL MAZUR
3 PHASES ENERGY SERVICES
2100 SEPULVEDA BLVD., SUITE 37
MANHATTAN BEACH, CA 90266
mmazur@3phases.com

RICHARD HELGESON
SOUTHERN CALIFORNIA PUBLIC POWER AUTHORI
225 S. LAKE AVE., SUITE 1250
PASADENA, CA 91101
rhelgeson@scppa.org

AKBAR JAZAYEIRI
SOUTHERN CALIFORNIA EDISON COMPANY
2244 WALNUT GROVE AVE. ROOM 390
ROSEMEAD, CA 91770
akbar.jazayeri@sce.com

SYMONE VONGDEUANE
SEMPRA ENERGY SOLUTIONS
101 ASH STREET, HQ09
SAN DIEGO, CA 92101-3017
svongdeuane@semprasolutions.com

THOMAS DARTON
PILOT POWER GROUP, INC.
9320 CHESAPEAKE DRIVE, SUITE 112
SAN DIEGO, CA 92123
tdarton@pilotpowergroup.com

LYNELLE LUND
COMMERCE ENERGY, INC.
600 ANTON BLVD., SUITE 2000
COSTA MESA, CA 92626
llund@commerceenergy.com

LAD LORENZ
SOUTHERN CALIFORNIA GAS COMPANY
601 VAN NESS AVENUE, SUITE 2060
SAN FRANCISCO, CA 94102
llorenz@semprautilities.com

Diana L. Lee
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214
dil@cpuc.ca.gov

F. Jackson Stoddard
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214
fjs@cpuc.ca.gov

AUDREY CHANG
NATURAL RESOURCES DEFENSE COUNCIL
111 SUTTER STREET, 20TH FLOOR
SAN FRANCISCO, CA 94104
achang@nrdc.org

EVELYN KAHL
ALCANTAR & KAHL, LLP
120 MONTGOMERY STREET, SUITE 2200
SAN FRANCISCO, CA 94104
ek@a-klaw.com

MICHAEL P. ALCANTAR
ALCANTAR & KAHL, LLP
120 MONTGOMERY STREET, SUITE 2200
SAN FRANCISCO, CA 94104
mpa@a-klaw.com

SEEMA SRINIVASAN
ALCANTAR & KAHL, LLP
120 MONTGOMERY STREET, SUITE 2200
SAN FRANCISCO, CA 94104
sls@a-klaw.com

CHRISTOPHER J. WARNER
PACIFIC GAS AND ELECTRIC COMPANY
77 BEALE STREET
SAN FRANCISCO, CA 94105
cjw5@pge.com

EDWARD G POOLE
ANDERSON DONOVAN & POOLE
601 CALIFORNIA STREET SUITE 1300
SAN FRANCISCO, CA 94108
epoole@adplaw.com

BRIAN T. CRAGG
GOODIN, MACBRIDE, SQUERI, RITCHIE & DAY
505 SANSOME STREET, SUITE 900
SAN FRANCISCO, CA 94111
bcragg@gmssr.com

JAMES D. SQUERI
GOODIN MACBRIDE SQUERI RITCHIE & DAY LLP
505 SANSOME STREET, STE 900
SAN FRANCISCO, CA 94111
jsqueri@gmssr.com

JOSEPH M. KARP
WINSTON & STRAWN LLP
101 CALIFORNIA STREET
SAN FRANCISCO, CA 94111
jkarp@winston.com

KAREN BOWEN
WINSTON & STRAWN LLP
101 CALIFORNIA STREET
SAN FRANCISCO, CA 94111
kbowen@winston.com

LISA A. COTTLE
WINSTON & STRAWN LLP
101 CALIFORNIA STREET, 39TH FLOOR
SAN FRANCISCO, CA 94111
lcottle@winston.com

JEFFREY P. GRAY
DAVIS WRIGHT TREMAINE, LLP
505 MONTGOMERY STREET, SUITE 800
SAN FRANCISCO, CA 94111-6533
jeffgray@dwt.com

LARS KVALE
CENTER FOR RESOURCE SOLUTIONS
PO BOX 39512
SAN FRANCISCO, CA 94129
lars@resource-solutions.org

BRIAN K. CHERRY
PACIFIC GAS AND ELECTRIC COMPANY
PO BOX 770000 MC B10C
SAN FRANCISCO, CA 94177-0001
bkc7@pge.com

ANDREA WELLER
STRATEGIC ENERGY
3130 D BALFOUR RD., SUITE 290
BRENTWOOD, CA 94513
aweller@sel.com

JENNIFER CHAMBERLIN
STRATEGIC ENERGY, LLC
3130 D BALFOUR ROAD, STE 290
BRENTWOOD, CA 94513
jchamberlin@sel.com

KERRY HATTEVIK
MIRANT CORPORATION
696 WEST 10TH STREET
PITTSBURG, CA 94565
kerry.hattevik@mirant.com

AVIS KOWALEWSKI
CALPINE CORPORATION
3875 HOPYARD ROAD, SUITE 345
PLEASANTON, CA 94588
kowalewskia@calpine.com

WILLIAM H. CHEN
CONSTELLATION NEW ENERGY, INC.
2175 N. CALIFORNIA BLVD., SUITE 300
WALNUT CREEK, CA 94596
bill.chen@constellation.com

J. ANDREW HOERNER
REDEFINING PROGRESS
1904 FRANKLIN STREET
OAKLAND, CA 94612
hoerner@redefiningprogress.org

JANILL RICHARDS
CALIFORNIA ATTORNEY GENERAL'S OFFICE
1515 CLAY STREET, 20TH FLOOR
OAKLAND, CA 94702
janill.richards@doj.ca.gov

CLIFF CHEN
UNION OF CONCERNED SCIENTIST
2397 SHATTUCK AVENUE, STE 203
BERKELEY, CA 94704
cchen@ucsusa.org

GREGG MORRIS
GREEN POWER INSTITUTE
2039 SHATTUCK AVENUE, STE 402
BERKELEY, CA 94704
gmorris@emf.net

R. THOMAS BEACH
CROSSBORDER ENERGY
2560 NINTH STREET, SUITE 213A
BERKELEY, CA 94710
tomb@crossborderenergy.com

BARRY F. MCCARTHY
MCCARTHY & BERLIN, LLP
100 PARK CENTER PLAZA, SUITE 501
SAN JOSE, CA 95113
bmcc@mccarthylaw.com

C. SUSIE BERLIN
MC CARTHY & BERLIN, LLP
100 PARK CENTER PLAZA, SUITE 501
SAN JOSE, CA 95113
sberlin@mccarthylaw.com

JOHN JENSEN
MOUNTAIN UTILITIES
PO BOX 205
KIRKWOOD, CA 95646
jjensen@kirkwood.com

MARY LYNCH
CONSTELLATION ENERGY COMMODITIES GROUP
2377 GOLD MEADOW WAY, STE. 100
GOLD RIVER, CA 95670
mary.lynch@constellation.com

ANDREW BROWN
ELLISON, SCHNEIDER & HARRIS, LLP
2015 H STREET
SACRAMENTO, CA 95814
abb@eslawfirm.com

BRUCE MCLAUGHLIN
BRAUN & BLAISING, P.C.
915 L STREET, SUITE 1420
SACRAMENTO, CA 95814
mclaughlin@braunlegal.com

GREGGORY L. WHEATLAND
ELLISON, SCHNEIDER & HARRIS, LLP
2015 H STREET
SACRAMENTO, CA 95814
glw@eslawfirm.com

JANE E. LUCKHARDT
DOWNEY BRAND LLP
555 CAPITOL MALL, 10TH FLOOR
SACRAMENTO, CA 95814
jluckhardt@downeybrand.com

JEDEDIAH J. GIBSON
ELLISON, SCHNEIDER & HARRIS LLP
2015 H STREET
SACRAMENTO, CA 95814
jjg@eslawfirm.com

WILLIAM W. WESTERFIELD, III
ELLISON, SCHNEIDER & HARRIS L.L.P.
2015 H STREET
SACRAMENTO, CA 95814
www@eslawfirm.com

DAN SILVERIA
SURPRISE VALLEY ELECTRIC COOPERATIVE
PO BOX 691
ALTURAS, CA 96101
dansvec@hdo.net

ROBERT W. MARSHALL
PLUMAS-SIERRA RURAL ELECTRIC CO-OP
73233 STATE ROUTE 70, STE A
PORTOLA, CA 96122-7064
marshall@psln.com

DONALD BROOKHYSER
ALCANTAR & KAHL
1300 SW FIFTH AVE., SUITE 1750
PORTLAND, OR 97210
deb@a-klaw.com

KYLE L. DAVIS
PACIFICORP
825 NE MULTNOMAH,
PORTLAND, OR 97232
kyle.l.davis@pacificorp.com

NATALIE HOCKEN, ESQ.
PACIFICORP
825 NE MULTNOMAH
PORTLAND, OR 97232
Natalie.Hocken@PacifiCorp.com

SHAY LABRAY
PACIFICORP
825 NE MULTNOMAH, SUITE 2000
PORTLAND, OR 97232
shayleah.labray@pacificorp.com

KELLY NORWOOD
AVISTA UTILITIES
PO BOX 3727, MSC-29
SPOKANE, WA 99220-3727
kelly.norwood@avistacorp.com

IAN CARTER
INTERNATIONAL EMISSIONS TRADING ASSN.
350 SPARKS STREET, STE. 809
OTTAWA, ON K1R 7S8
carter@ieta.org

CAROL JOLLY
PO BOX 585
CHESTERFIELD, MA 1012
cajollyco@verizon.net

BRIAN M. JONES
M. J. BRADLEY & ASSOCIATES, INC.
47 JUNCTION SQUARE DRIVE
CONCORD, MA 1742
bjones@mjbradley.com

RICHARD COWART
REGULATORY ASSISTANCE PROJECT
50 STATE STREET, SUITE 3
MONTPELIER, VT 5602
rapcowart@aol.com

DALLAS BURTRAW
1616 P STREET, NW
WASHINGTON, DC 20036
burtraw@rff.org

VERONIQUE BUGNION
POINT CARBON
205 SEVERN RIVER RD
SEVERNA PARK, MD 21146
vb@pointcarbon.com

LISA DECKER
CONSTELLATION ENERGY GROUP, INC.
111 MARKET PLACE, SUITE 500
BALTIMORE, MD 21202
lisa.decker@constellation.com

CATHY S. WOOLLUMS
MIDAMERICAN ENERGY HOLDINGS COMPANY
106 EAST SECOND STREET
DAVENPORT, IA 52801
cswoollums@midamerican.com

BRIAN POTTS
ONE SOUTH PINCKNEY STREET
MADISON, WI 53703
bhpotts@michaelbest.com

JAMES ROSS
RCS, INC.
500 CHESTERFIELD CENTER, SUITE 320
CHESTERFIELD, MO 63017
jimross@r-c-s-inc.com

PAUL M. SEBY
MCKENNA LONG & ALDRIDGE LLP
1875 LAWRENCE STREET, SUITE 200
DENVER, CO 80202
pseby@mckennalong.com

TIMOTHY R. ODIL
MCKENNA LONG & ALDRIDGE LLP
1875 LAWRENCE STREET, SUITE 200
DENVER, CO 80202
todil@mckennalong.com

KEVIN J. SIMONSEN
ENERGY MANAGEMENT SERVICES
646 EAST THIRD AVENUE
DURANGO, CO 81301
kjsimonsen@ems-ca.com

KELLY POTTER
APS ENERGY SERVICES COMPANY, INC.
400 E. VAN BUREN STREET, SUITE 750
PHOENIX, AZ 85260
kelly.potter@apses.com

BRIAN MCQUOWN
RELIANT ENERGY
7251 AMIGO ST., SUITE 120
LAS VEGAS, NV 89119
bmcquown@reliant.com

CYNTHIA MITCHELL
ENERGY ECONOMICS, INC.
530 COLGATE COURT
RENO, NV 89503
ckmitchell1@sbcglobal.net

ELENA MELLO
SIERRA PACIFIC POWER COMPANY
6100 NEIL ROAD
RENO, NV 89520
emello@sppc.com

FRANK LUCHETTI
NEVADA DIV. OF ENVIRONMENTAL PROTECTION
901 S. STEWART ST., SUITE 4001
CARSON CITY, NV 89701
fluchetti@ndep.nv.gov

MICHAEL MCCORMICK
CALIFORNIA CLIMATE ACTION REGISTRY
515 S. FLOWER ST. SUITE 1640
LOS ANGELES, CA 90071
mike@climateregistry.org

ROGER PELOTE
THE WILLIAMS COMPANY, INC.
12736 CALIFA STREET
VALLEY VILLAGE, CA 91607
roger.pelote@williams.com

ADRIAN E. SULLIVAN
SEMPRA ENERGY
101 ASH STREET, HQ13D
SAN DIEGO, CA 92101
asullivan@sempra.com

JOHN LAUN
APOGEE INTERACTIVE, INC.
1220 ROSECRANS ST., SUITE 308
SAN DIEGO, CA 92106
jlaun@apogee.net

GLORIA D. SMITH
ADAMS, BROADWELL, JOSEPH & CARDOZO
601 GATEWAY BLVD., SUITE 1000
SOUTH SAN FRANCISCO, CA 94080
gsmith@adamsbroadwell.com

HAYLEY GOODSON
THE UTILITY REFORM NETWORK
711 VAN NESS AVENUE, SUITE 350
SAN FRANCISCO, CA 94102
hayley@turn.org

MICHEL FLORIO
711 VAN NESS AVE., STE. 350
SAN FRANCISCO, CA 94102
mflorio@turn.org

DEVRA WANG
NATURAL RESOURCES DEFENSE COUNCIL
111 SUTTER STREET, 20TH FLOOR
SAN FRANCISCO, CA 94104
dwang@nrdc.org

SHERYL CARTER
NATURAL RESOURCES DEFENSE COUNCIL
111 SUTTER STREET, 20TH FLOOR
SAN FRANCISCO, CA 94104
scarter@nrdc.org

RASHA PRINCE
SAN DIEGO GAS & ELECTRIC
555 WEST 5TH STREET, GT14D6
LOS ANGELES, CA 90013
rprince@semprautilities.com

HARVEY EDER
PUBLIC SOLAR POWER COALITION
1218 12TH ST., 25
SANTA MONICA, CA 90401
harveyederpspc.org@hotmail.com

CASE ADMINISTRATION
SOUTHERN CALIFORNIA EDISON COMPANY
2244 WALNUT GROVE AVE., RM. 370
ROSEMEAD, CA 91770
case.admin@sce.com

DONALD C. LIDDELL, P.C.
DOUGLASS & LIDDELL
2928 2ND AVENUE
SAN DIEGO, CA 92103
liddell@energyattorney.com

JOHN W. LESLIE
LUCE, FORWARD, HAMILTON & SCRIPPS, LLP
11988 EL CAMINO REAL, SUITE 200
SAN DIEGO, CA 92130
jleslie@luce.com

MARC D. JOSEPH
ADAMS BRADWELL JOSEPH & CARDOZO
601 GATEWAY BLVD. STE 1000
SOUTH SAN FRANCISCO, CA 94080
mdjoseph@adamsbroadwell.com

MARCEL HAWIGER
THE UTILITY REFORM NETWORK
711 VAN NESS AVENUE, SUITE 350
SAN FRANCISCO, CA 94102
marcel@turn.org

NINA SUETAKE
THE UTILITY REFORM NETWORK
711 VAN NESS AVE., STE 350
SAN FRANCISCO, CA 94102
nsuetake@turn.org

KAREN TERRANOVA
ALCANTAR & KAHL, LLP
120 MONTGOMERY STREET, STE 2200
SAN FRANCISCO, CA 94104
filings@a-klaw.com

STEPHANIE LA SHAWN
PACIFIC GAS AND ELECTRIC COMPANY
77 BEALE STREET, RM. 996B
SAN FRANCISCO, CA 94105
S1L7@pge.com

CURTIS L. KEBLER
GOLDMAN, SACHS & CO.
2121 AVENUE OF THE STARS
LOS ANGELES, CA 90067
curtis.kebler@gs.com

TOM HAMILTON
ENERGY CONCIERGE SERVICES
321 MESA LILA RD
GLENDALE, CA 91208
THAMILTON5@CHARTER.NET

BARRY LOVELL
15708 POMERADO RD., SUITE 203
POWAY, CA 92064
bjl@bry.com

YVONNE GROSS
SEMPRA ENERGY
101 ASH STREET
SAN DIEGO, CA 92103
ygross@sempraglobal.com

JAN PEPPER
CLEAN POWER MARKETS, INC.
418 BENVENUE AVENUE
LOS ALTOS, CA 94024
pepper@cleanpowermarkets.com

DIANE I. FELLMAN
LAW OFFICES OF DIANE I. FELLMAN
234 VAN NESS AVENUE
SAN FRANCISCO, CA 94102
diane_fellman@fpl.com

MATTHEW FREEDMAN
THE UTILITY REFORM NETWORK
711 VAN NESS AVENUE, SUITE 350
SAN FRANCISCO, CA 94102
freedman@turn.org

DAN ADLER
CALIFORNIA CLEAN ENERGY FUND
582 MARKET ST., SUITE 1015
SAN FRANCISCO, CA 94104
Dan.adler@calcef.org

OLOF BYSTROM
CAMBRIDGE ENERGY RESEARCH ASSOCIATES
555 CALIFORNIA STREET, 3RD FLOOR
SAN FRANCISCO, CA 94104
obystrom@cera.com

NORMAN J. FURUTA
FEDERAL EXECUTIVE AGENCIES
333 MARKET STREET, 10TH FLOOR, MS 1021A
SAN FRANCISCO, CA 94105-2195
norman.furuta@navy.mil

CALIFORNIA ENERGY MARKETS
517-B POTRERO AVENUE
SAN FRANCISCO, CA 94110
cem@newsdata.com

ANN G. GRIMALDI
MCKENNA LONG & ALDRIDGE LLP
101 CALIFORNIA STREET, 41ST FLOOR
SAN FRANCISCO, CA 94111
agrimaldi@mckennalong.com

HOWARD V. GOLUB
NIXON PEABODY LLP
2 EMBARCADERO CENTER, STE. 2700
SAN FRANCISCO, CA 94111
hgolub@nixonpeabody.com

JANINE L. SCANCARELLI
FOLGER LEVIN & KAHN LLP
275 BATTERY STREET, 23RD FLOOR
SAN FRANCISCO, CA 94111
jscancarelli@flk.com

JOSEPH F. WIEDMAN
GOODIN MACBRIDE SQUERI RITCHIE & DAY,LLP
505 SANSOME STREET, SUITE 900
SAN FRANCISCO, CA 94111
jwiedman@gmssr.com

MARTIN A. MATTES
NOSSAMAN, GUTHNER, KNOX & ELLIOTT, LLP
50 CALIFORNIA STREET, 34TH FLOOR
SAN FRANCISCO, CA 94111
mmattes@nossaman.com

CHRISTOPHER A. HILEN
DAVIS WRIGHT TREMAINE LLP
505 MONTGOMERY STREET, SUITE 800
SAN FRANCISCO, CA 94111-6533
christopherhilen@dwt.com

JEN MCGRAW
CENTER FOR NEIGHBORHOOD TECHNOLOGY
PO BOX 14322
SAN FRANCISCO, CA 94114
jen@cnt.org

LISA WEINZIMER
PLATTS
695 NINTH AVENUE, NO. 2
SAN FRANCISCO, CA 94118
lisa_weinzimer@platts.com

STEVEN MOSS
SAN FRANCISCO COMMUNITY POWER COOP
2325 3RD STREET, SUITE 344
SAN FRANCISCO, CA 94120
steven@moss.net

SARA STECK MYERS
122 28TH AVENUE
SAN FRANCISCO, CA 94121
ssmyers@att.net

SHAUN ELLIS
2183 UNION STREET
SAN FRANCISCO, CA 94123
sellis@fypower.org

ARNO HARRIS
RECURRENT ENERGY, INC.
220 HALLECK ST., SUITE 220
SAN FRANCISCSO, CA 94129
arno@recurrentenergy.com

DAREN CHAN
PO BOX 770000, MAIL CODE B9A
SAN FRANCISCO, CA 94177
d1ct@pge.com

ED LUCHA
PACIFIC GAS AND ELECTRIC COMPANY
PO BOX 770000, MAIL CODE: B9A
SAN FRANCISCO, CA 94177
ell5@pge.com

GRACE LIVINGSTON-NUNLEY
PACIFIC GAS AND ELECTRIC COMPANY
PO BOX 770000 MAIL CODE B9A
SAN FRANCISCO, CA 94177
gxl2@pge.com

JASMIN ANSAR
PG&E
PO BOX 770000
SAN FRANCISCO, CA 94177
jxa2@pge.com

JONATHAN FORRESTER
PG&E
PO BOX 770000
SAN FRANCISCO, CA 94177
JDF1@PGE.COM

SEBASTIEN CSAPO
PACIFIC GAS AND ELECTRIC COMPANY
PO BOX 770000
SAN FRANCISCO, CA 94177
sscb@pge.com

SOUMYA SASTRY
PACIFIC GAS AND ELECTRIC COMPANY
PO BOX 770000
SAN FRANCISCO, CA 94177
svs6@pge.com

VALERIE J. WINN
PACIFIC GAS AND ELECTRIC COMPANY
PO BOX 770000, B9A
SAN FRANCISCO, CA 94177-0001
vjw3@pge.com

GREG BLUE
140 MOUNTAIN PKWY.
CLAYTON, CA 94517
greg.blue@sbcglobal.net

ANDREW J. VAN HORN
VAN HORN CONSULTING
12 LIND COURT
ORINDA, CA 94563
andy.vanhorn@vhcenergy.com

JOSEPH M. PAUL
DYNEGY, INC.
2420 CAMINO RAMON, SUITE 215
SAN RAMON, CA 94583
Joe.paul@dynegy.com

STEVEN S. SCHLEIMER
CALPINE CORPORATION
3875 HOPYARD ROAD, SUITE 345
PLEASANTON, CA 94588
sschleimer@calpine.com

MONICA A. SCHWEBS, ESQ.
BINGHAM MCCUTCHEN LLP
1333 N. CALIFORNIA BLVD.
WALNUT CREEK, CA 94596
monica.schwebs@bingham.com

MRW & ASSOCIATES, INC.
1999 HARRISON STREET, SUITE 1440
OAKLAND, CA 94612
mrw@mrwassoc.com

CARLA PETERMAN
1815 BLAKE ST., APT. A
BERKELEY, CA 94703
cpeterman@berkeley.edu

REED V. SCHMIDT
BARTLE WELLS ASSOCIATES
1889 ALCATRAZ AVENUE
BERKELEY, CA 94703
rschmidt@bartlewells.com

JOHN GALLOWAY
UNION OF CONCERNED SCIENTISTS
2397 SHATTUCK AVENUE, SUITE 203
BERKELEY, CA 94704
jgalloway@ucsusa.org

CLYDE MURLEY
CONSULTANT
600 SAN CARLOS AVENUE
ALBANY, CA 94706
clyde.murley@comcast.net

PHILLIP J. MULLER
SCD ENERGY SOLUTIONS
436 NOVA ALBION WAY
SAN RAFAEL, CA 94903
philm@scdenergy.com

MAHLON ALDRIDGE
ECOLOGY ACTION
PO BOX 1188
SANTA CRUZ, CA 95060
emahlon@ecoact.org

RICHARD SMITH
MODESTO IRRIGATION DISTRICT
1231 11TH STREET
MODESTO, CA 95352-4060
richards@mid.org

CLARK BERNIER
RLW ANALYTICS
1055 BROADWAY, SUITE G
SONOMA, CA 95476
clark.bernier@rlw.com

CALIFORNIA ISO
151 BLUE RAVINE ROAD
FOLSOM, CA 95630
e-recipient@caiso.com

SCOTT TOMASHEFSKY
NORTHERN CALIFORNIA POWER AGENCY
180 CIRBY WAY
ROSEVILLE, CA 95678-6420
scott.tomashefsky@ncpa.com

CURT BARRY
717 K STREET, SUITE 503
SACRAMENTO, CA 95814
curt.barry@iwpnews.com

BALWANT S. PUREWAL
DEPARTMENT OF WATER RESOURCES
3310 EL CAMINO AVE., LL-90
SACRAMENTO, CA 95821
bpurewal@water.ca.gov

DENISE HILL
4004 KRUSE WAY PLACE, SUITE 150
LAKE OSWEGO, OR 97035
Denise_Hill@transalta.com

EDWARD VINE
LAWRENCE BERKELEY NATIONAL LABORATORY
BUILDING 90-4000
BERKELEY, CA 94720
elvine@lbl.gov

CARL PECHMAN
POWER ECONOMICS
901 CENTER STREET
SANTA CRUZ, CA 95060
cpechman@powereconomics.com

ERIC WANLESS
NATURAL RESOURCES DEFENSE COUNCIL
111 SUTTER STREET, 20TH FLOOR
SAN FRANCISCSO, CA 95104
ewanless@nrdc.org

CHRISTOPHER J. MAYER
MODESTO IRRIGATION DISTRICT
1231 11TH STREET
MODESTO, CA 95354
chrism@mid.org

RICHARD MCCANN, PH.D
M. CUBED
2655 PORTAGE BAY, SUITE 3
DAVIS, CA 95616
rmccann@umich.edu

SAEED FARROKHPAY
FEDERAL ENERGY REGULATORY COMMISSION
110 BLUE RAVINE RD., SUITE 107
FOLSOM, CA 95630
saeed.farrokhpay@ferc.gov

ELLEN WOLFE
RESERO CONSULTING
9289 SHADOW BROOK PL.
GRANITE BAY, CA 95746
ewolfe@resero.com

STEVEN KELLY
INDEPENDENT ENERGY PRODUCERS ASSN
1215 K STREET, SUITE 900
SACRAMENTO, CA 95814-3947
steven@iepa.com

KAREN NORENE MILLS
CALIFORNIA FARM BUREAU FEDERATION
2300 RIVER PLAZA DRIVE
SACRAMENTO, CA 95833
kmills@cfbf.com

KEVIN FOX
STOEL RIVES LLP
900 SW FIFTH AVENUE, SUITE 2600
PORTLAND, OR 97204
ktfox@stoel.com

RYAN WISER
BERKELEY LAB
ONE CYCLOTRON ROAD
BERKELEY, CA 94720
rhwiser@lbl.gov

KENNY SWAIN
POWER ECONOMICS
901 CENTER STREET
SANTA CRUZ, CA 95060
kswain@powereconomics.com

JOY A. WARREN
MODESTO IRRIGATION DISTRICT
PO BOX 4060
MODESTO, CA 95352
joyw@mid.org

ROGER VANHOY
MODESTO IRRIGATION DISTRICT
1231 11TH STREET
MODESTO, CA 95354
rogerv@mid.org

CAROLYN M. KEHREIN
ENERGY MANAGEMENT SERVICES
1505 DUNLAP COURT
DIXON, CA 95620-4208
cmkehrein@ems-ca.com

DAVID BRANCHCOMB
BRANCHCOMB ASSOCIATES, LLC
9360 OAKTREE LANE
ORANGEVILLE, CA 95662
david@branchcomb.com

AUDRA HARTMANN
LS POWER GENERATION
980 NINTH STREET, SUITE 1420
SACRAMENTO, CA 95814
ahartmann@lspower.com

EDWARD J. TIEDEMANN
KRONICK, MOSKOVITZ, TIEDEMANN & GIRARD
400 CAPITOL MALL, 27TH FLOOR
SACRAMENTO, CA 95814-4416
etiedemann@kmtg.com

KAREN LINDH
LINDH & ASSOCIATES
7909 WALERGA ROAD, NO. 112, PMB119
ANTELOPE, CA 95843
karen@klindh.com

ANNIE STANGE
ALCANTAR & KAHL
1300 SW FIFTH AVE., SUITE 1750
PORTLAND, OR 97210
sas@a-klaw.com

ALAN COMNES
WEST COAST POWER
3934 SE ASH STREET
PORTLAND, OR 97214
alan.comnes@nrgenergy.com

MARK C. TREXLER
TREXLER CLIMATE+ENERGY SERVICES, INC.
529 SE GRAND AVE,M SUITE 300
PORTLAND, OR 97214-2232
mtrexler@climateservices.com

SAM SADLER
OREGON DEPARTMENT OF ENERGY
625 NE MARION STREET
SALEM, OR 97301-3737
samuel.r.sadler@state.or.us

LISA SCHWARTZ
ORGEON PUBLIC UTILITY COMMISSION
PO BOX 2148
SALEM, OR 97308-2148
lisa.c.schwartz@state.or.us

JESUS ARREDONDO
NRG ENERGY INC.
4600 CARLSBAD BLVD.
CARLSBAD, CA 99208
jesus.arredondo@nrgenergy.com

TIM HEMIG
NRG ENERGY
4600 CARLSBAD BLVD.
CARLSBAD, CA 99208
tim.hemig@nrgenergy.com

KAREN MCDONALD
POWEREX CORPORATION
666 BURRAND STREET
VANCOUVER, BC V6C 2X8
karen.mcdonald@powerex.com

James Loewen
CALIF PUBLIC UTILITIES COMMISSION
320 WEST 4TH STREET SUITE 500
LOS ANGELES, CA 90013
loe@cpuc.ca.gov

Charlotte TerKeurst
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214
cft@cpuc.ca.gov

Christine S. Tam
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214
tam@cpuc.ca.gov

Donald R. Smith
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214
dsh@cpuc.ca.gov

Jaclyn Marks
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214
jm3@cpuc.ca.gov

Jonathan Lakritz
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214
jol@cpuc.ca.gov

Judith Ikle
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214
jci@cpuc.ca.gov

Julie A. Fitch
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214
jf2@cpuc.ca.gov

Kristin Ralff Douglas
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214
krd@cpuc.ca.gov

Lainie Motamedi
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214
lrm@cpuc.ca.gov

Matthew Deal
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214
mjd@cpuc.ca.gov

Meg Gottstein
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214
meg@cpuc.ca.gov

Merideth Sterkel
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214
mts@cpuc.ca.gov

Nancy Ryan
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214
ner@cpuc.ca.gov

Sara M. Kamins
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214
smk@cpuc.ca.gov

Theresa Cho
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214
tcx@cpuc.ca.gov

BILL LOCKYER
STATE OF CALIFORNIA, DEPT OF JUSTICE
PO BOX 944255
SACRAMENTO, CA 94244-2550
ken.alex@doj.ca.gov

GRANT A. ROSENBLUM
CALIFORNIA ISO
151 BLUE RAVINE ROAD
FOLSOM, CA 95630
grosenblum@caiso.com

MICHAEL SCHEIBLE
CALIFORNIA AIR RESOURCES BOARD
1001 I STREET
SACRAMENTO, CA 95677
mscheibl@arb.ca.gov

MEG GOTTSTEIN
PO BOX 210/21496 NATIONAL STREET
VOLCANO, CA 95689
gottstein@volcano.net

B. B. BLEVINS
CALIFORNIA ENERGY COMMISSION
1516 9TH STREET, MS-39
SACRAMENTO, CA 95814
bblevins@energy.state.ca.us

Don Schultz
CALIF PUBLIC UTILITIES COMMISSION
770 L STREET, SUITE 1050
SACRAMENTO, CA 95814
dks@cpuc.ca.gov

KAREN GRIFFIN
CALIFORNIA ENERGY COMMISSION
1516 9TH STREET, MS 39
SACRAMENTO, CA 95814
kgriffin@energy.state.ca.us

LISA DECARLO
CALIFORNIA ENERGY COMMISSION
1516 9TH STREET MS-14
SACRAMENTO, CA 95814
ldecarlo@energy.state.ca.us

PIERRE H. DUVAIR
CALIFORNIA ENERGY COMMISSION
1516 NINTH STREET, MS-41
SACRAMENTO, CA 95814
pduvair@energy.state.ca.us